

What is claimed is:

1. A numerical information retrieving device for retrieving numerical information in a natural language, comprising:

input means for inputting any document to-be-retrieved or any numerical expression to-be-retrieved;

an attribute information dictionary which stores therein attribute names indicative of attributes, and conditions for bestowing the attributes;

attribute bestowal means for bestowing an attribute on the inputted document or numerical expression by referring to said attribute information dictionary;

a conversion information dictionary which stores attribute names indicative of attributes, non-converted character strings, and converted character strings therein; and

numerical conversion means for converting a numerical value of a part of the document or numerical expression as is endowed with the attribute, from a non-converted character string into a converted character string by referring to the conversion information dictionary, thereby to convert numerical information of the part endowed with the attribute.

2. A numerical information retrieving device according to claim 1, further comprising:

extraction means for extracting a specific

attribute part as a retrieval keyword from the document after the attribute bestowal conversion;

a document database which stores document data therein; and

document storage and retrieval means for storing the document after the attribute bestowal conversion, the inputted original document, and the extracted retrieval keyword in said document database.

3. A numerical information retrieving device according to claim 2, further comprising:

output means for outputting a retrieved result;

wherein said document storage and retrieval means retrieves any document whose retrieval keyword agrees with the numerical expression after the attribute bestowal conversion, from said document database, and it sends the retrieved document as the retrieved result to said output means.

4. A numerical information retrieving device according to claim 2, further comprising:

an extraction information dictionary which stores therein attribute names indicative of attributes, range specifying words indicative of expressions of ranges, comparing conditions indicative of relations of magnitudes of comparisons, and alignment orders indicative of orders for rearranging outputs; rearrangement means for rearranging the outputs; and output means for outputting retrieved results;

wherein said extraction means extracts an attribute name, a numerical value and a range specifying word from the numerical expression after the attribute bestowal conversion;

said rearrangement means compares the numerical value extracted from the numerical expression, with respective numerical values of a plurality of retrieval keywords whose attribute names agree with the attribute name extracted from the numerical expression, and it selects the retrieval keywords as to which results of the comparisons are suited to a comparing condition of the range specifying word and rearranges the selected retrieval keywords in an alignment order, by referring to said extraction information dictionary; and

said document storage and retrieval means searches for retrieval keywords whose attribute names agree with the attribute name extracted from the numerical expression, from said document database, so as to send the keywords searched for, to said rearrangement means, and it retrieves any documents which agree with the rearranged retrieval keywords, from within said document database, so as to send the retrieved documents as the retrieved results to said output means, in the order of the rearranged retrieval keywords.

5. A numerical information retrieving device according to claim 1, wherein said attribute bestowal means bestows an opening tag and a closing tag of the attribute before and behind

a condition part of an original sentence, respectively, by referring to said attribute information dictionary.

6. A numerical information retrieving device according to claim 1, wherein said attribute bestowal means bestows the attribute by referring to said attribute information dictionary, so that attribute information data indicative of the attribute of a condition part in an original sentence can be held separately from the original sentence without altering the original sentence.